

## **REMARKS**

### **1. Amendments to the claims**

Claims 1, 3-6 and 10-17 are pending in the application. With the present submission, Applicants amend claims 1, 11 and 14, cancel claims 12-13 and 15-17, and add new claims 18-20.

Support for amended claim 1 can be found, for example, at page 4 lines 1-21 and from page 8 line 5 to page 9 line 11 of the application as filed. Support for new claim 18 can be found, for example, at page 12 of the application as filed. Support for new claim 19 can be found, for example, at page 8 lines 13-20 of the application as filed. Support for new claim 20 can be found, for example, from page 9 line 13 to page 10 line 9 of the application as filed.

### **2. 35 USC 103 (a)**

2.1) In section 2 of the Action mailed October 18, 2010, the Examiner still rejects claims 1, 3-6 and 12-14 under 35 USC 103(a) as being unpatentable over Glushko in view of Bawendi and further in view of Fuller. In section 3, the Examiner also rejects claim 10 on the basis of Glushko, Bawendi and Metz. Finally, in section 4, the Examiner rejects claim 11 and 15-17 on the basis of Glushko, Bawendi and Wenzel.

2.2) With the present submission, Applicants amend claim 1 to recite that *"a plurality of nanometer beads filled with nanometer sized particles" are "distributed" "in a plurality of distinct data pit locations on a rotating data storage medium disk, the nanometer sized particles providing two or more different colors to the nanometer beads" "wherein the plurality of distinct data pit locations differ from each other for at least one of said two or more different colors and represent different states, each state being defined by two or more bits corresponding to the presence or absence of anyone of said two or more different colors"*.

2.3) Applicants submit that neither Bawendi nor Glushko disclose any *"distinct data pit locations" which "differ from each other for at least one of" said "two or more different colors", wherein "distinct data pit locations" "represent different states, each state being defined by two*

*or more bits corresponding to the presence or absence of anyone of said two or more different colors".*

In fact, Glushko disclose cells 3 which differ from each other for the presence or absence of an isomer (column 13 line 45-65 of Glushko) or for the amount of an isomer (column 14 lines 8-14 of Glushko). Further see the abstract of Glushko, which recites that "[T]he information is stored within the medium as numerical values associated with amount of one of the isomeric forms of active medium contained within elemental cells distributed within the active medium".

As to Bawendi, Applicants note that Bawendi (see column 5 lines 45-65 already mentioned by the Examiner, column 6 lines 28-48 and column 10 lines 26- 42 of Bawendi) discloses analysis of spectral emissions of quantum dots to check the presence of characteristic wavelengths or colors to allow identification or location of a single item or matter of interest or library element (see column 13 lines 24-42), which are strictly associated with such characteristic wavelengths.

In other words, in Bawendi, one or more sizes of quantum dots are **only** associated to a single item (see column 7 lines 25-30, column 8 lines 2-5, and column 9 lines 38-65 of Bawendi). In particular, Applicants note that, although Bawendi discloses the use of more than one particle size distribution (for example, three particle size distributions, see column 9 lines 45-50 of Bawendi), such particle size distributions are unitarily associated to a single item of interest. In fact, the Bawendi's disclosure focuses on the use of barcode to "track" the location of such item (see column 5 lines 48-53).

It follows that Bawendi is absolutely silent about any *"distributing a plurality of nanometer beads filled with nanometer sized particles in a plurality of distinct data pit locations"* (emphasis added), wherein the "distinct data pit locations" "differ from each other for at least one of" said *"two or more different colors"*.

Applicants further note that Bawendi discloses  $M^N$  distinguishable states (see column 10 lines 1-25) and clarifies that an increase of both the N sizes of quantum dots and the M states (presence

or absence of a size of quantum dot, or different intensities of spectral emissions) determine an higher order code of the encoding system, thus requiring fewer identifiers. In this respect, Applicants note that the  $M^N$  distinguishable states of Bawendi are only correlated to the order code of the encoding system.

In other words, Barwendi discloses that the number of  $M^N$  distinguishable states is proportionally correlated with the order code. This means that the higher  $M^N$  the higher the order code.

However, Bawendi fails to disclose any states which are "represented" by a *"plurality of distinct data pit locations"* which are present *"on a rotating data storage medium disk"*.

In view of all of the previously presented considerations, Applicants submit that amended claim 1 and dependent claims 3-6, 10-11 and 14 are patentable.

### 3. (new claims)

3.1) New claims 18-20 depend on claim 1. Therefore, at least for that reason, they are also submitted to be novel and not obvious over Bawendi and Glushko.

3.2) In addition, as to claim 19, Applicants have already shown that neither Bawendi nor Glushko disclose any *"distinct data pit locations"* which *"differ from each other for at least one of"* said *"two or more different colors"*.

It follows that neither Bawendi nor Glushko disclose that *"the two or more different colors are red, green and blue and red is the most significant bit followed by blue and green as the least."*

3.3) As to claim 20, Applicants note that such claim recites that *"a plurality of nanometer beads filled with nanometer sized particles"* are distributed *"in a plurality of distinct data pit locations on a rotating data storage medium disk, the nanometer sized particles providing two or more different shades of a color to the nanometer, wherein the plurality of distinct data pit locations differ from each other for at least one of said two or more different shades and represent*

*different states, each state being defined by two or more bits corresponding to the presence or absence of anyone of said two or more different shades".*

Similarly to the arguments of section 2.3) above, Applicants submit that neither Bawendi nor Glushko disclose any "*distinct data pit locations*" which "*differ from each other for at least one of*" said "*two or more different shades of a color*".

In fact, as already argued in section 2.3) above, Glushko disclose cells 3 which differ from each other for the presence or absence of an isomer (column 13 line 45-65 of Glushko) or for the amount of an isomer (column 14 lines 8-14), and Bawendi (see column 5 lines 45-65 already mentioned by the Examiner, column 6 lines 28-48 and column 10 lines 26- 42 of Bawendi) discloses  $M^N$  distinguishable states (see column 10 lines 1-25) which are only correlated to an order code of an encoding system, but are not represented by any "*plurality of distinct data pit locations*".

#### 4. (request)

Reconsideration and allowance of all the claims are respectfully requested.

5. (fees)

The Commissioner is authorized to charge any additional fees which may be required or credit overpayment to deposit account no. 50-4194. In particular, if this response is not timely filed, then the Commissioner is authorized to treat this response as including a petition to extend the time period pursuant to 37 CFR 1.136(a) requesting an extension of time of the number of months necessary to make this response timely filed and the petition fee due in connection herewith may be charged to deposit account no. 50-4194. Please ensure that the Attorney Docket Number is referred to when charging any payments or crediting any overpayments for this case.

I hereby certify that this correspondence is  
being electronically transmitted on

January 18, 2011  
/ Jason Varner /

(signature of person transmitting)

Respectfully submitted,

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